

Heard Island and McDonald Islands Marine Reserve

Proposal



May 2002

Proposal for Heard Island and McDonald Islands Marine Reserve

1. Introduction

The process to be followed to establish new Commonwealth reserves is set out in Division 4, Subdivision B of the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act). The simplified outline of that Subdivision states:

“The Governor-General can proclaim Commonwealth reserves over areas of land or sea:

- (a) that the Commonwealth owns; or*
- (b) that the Commonwealth or the Director leases; or*
- (c) that are in a Commonwealth marine area; or*
- (d) outside Australia that the Commonwealth has international obligations to protect.*

A Proclamation must assign the reserve to a particular category that affects how the reserve is managed and used.

Proclamations can be made to alter and revoke reserves.

The Director must consult publicly before some Proclamations are made.”

The purpose of this paper is to provide the basis for consultation on the notice of intent to declare a Commonwealth reserve under the EPBC Act in the region of Heard Island and McDonald Islands (HIMI) in the Southern Ocean.

Australia’s Oceans Policy (1998) contains an initial list of five priority areas for declaration as marine reserves. The reserve in the Heard Island and McDonald Islands region will be the last of these areas to be declared.

2. Proposed Name of the Reserve (EPBC Act s351(3)(a))

The proposed name of the reserve is the Heard Island and McDonald Islands Marine Reserve.

3. Proposed Boundaries of the Reserve (EPBC Act s351(3)(b))

The proposed boundaries of the Heard Island and McDonald Islands Marine Reserve are described in Attachment A(i).

In summary, the proposed reserve will encompass:

- Heard Island and McDonald Islands and the associated territorial sea (the existing Heard Island Wilderness Reserve);
- central portion of the plateau area to the north of the territorial sea extending out to the Australian EEZ boundary;
- a portion of the western plateau around Coral Bank;
- a small area to the south of the territorial sea; and
- a portion of the north east of the plateau area, including areas over and around Shell Bank and part of the Northeastern Plateau out to the limits of the EEZ.

It is proposed that the seabed and subsoil of the land and seabed, to a depth of 1000 metres, be included in the reserve.

Maps indicating the boundaries of the proposed reserve are at Attachment A(ii).

In addition to the proposed reserve, four further areas adjoining the proposed reserve will be declared as a Conservation Zone and further assessed for their conservation and fishing resource values before determining if these areas will eventually be included in the proposed reserve.

4. Purpose for which the Reserve is to be Declared (EPBC Act s.351(3)(c))

The purposes for declaring the Heard Island and McDonald Islands Marine Reserve are to:

- a. protect conservation values of Heard Island and McDonald Islands, the territorial sea and the adjacent Exclusive Economic Zone (HIMI EEZ) including:
 - the World Heritage and cultural values of the Territory of Heard Island and McDonald Islands;
 - the unique features of the benthic and pelagic environments;
 - representative portions of the different marine habitat types; and
 - marine areas used by land-based marine predators for local foraging activities.
- b. provide an effective conservation framework which will contribute to the integrated and ecologically sustainable management of the HIMI region as a whole;
- c. provide a scientific reference area for the study of ecosystem function within the HIMI region; and
- d. add representative examples of the HIMI EEZ to the National Representative System of Marine Protected Areas.

5. IUCN Category to be Assigned to Reserve (EPBC Act s.351(3)(d))

The area of the proposed Heard Island and McDonald Islands Marine Reserve contains outstanding and representative ecosystems, geographical features and terrestrial and marine species. The region remains in a relatively pristine state given the very recent opening of fisheries and the limited human interference in the region to date. The existing Heard Island Wilderness Reserve is currently managed as an IUCN Category 1a (strict nature reserve).

It is thus appropriate that the proposed Heard Island and McDonald Islands Marine Reserve is accorded the highest level of protection and is assigned to IUCN Category 1a (strict nature reserve) – in accordance with s346(1)(e) and s347(2) of the EPBC Act.

6. Purposes for which it is Intended to Manage and Use the Reserve (EPBC Act s.351(3)(e))

The proposed reserve will be managed as an IUCN Category 1a protected area (strict nature reserve) primarily for scientific research or environmental monitoring.

The proposed management regime will exclude most human activity, that is:

1. No activities deleterious or contrary to the purposes of the reserve will be permitted;
2. No mining or exploration for petroleum or minerals will be permitted; and
3. No commercial fishing will be permitted.

Based on available information, the intended management of the areas described in Part 3 of this proposal will meet the objectives set out for the reserve, and provide a high level of protection for the conservation values identified across the HIMI region.

Under the EPBC Act, a management plan for the reserve must be prepared as soon as practicable after it has been declared. A management plan is intended to be in force for seven years, at which time a new management plan must be prepared. Any new plan that is prepared will take into account any further knowledge about the HIMI environment that has been gained in the intervening years.

It is intended that all of the areas described in Part 3 of this proposal will be managed as a single Commonwealth reserve via a single management plan prepared under the EPBC Act and administered by the Australian Antarctic Division (AAD) of the Department of Environment and Heritage.

7. Background to the Issuing of a Notice of Intent

a. Conservation Values

The conservation values of the HIMI region have been documented in the HIMI Conservation Report: *Conservation of marine habitats in the region of Heard Island and McDonald Islands* (AAD 2000) and also using the ANZECC criteria for the identification and selection of marine protected areas under the National Representative System of Marine Protected Areas (NRSMPA). The HIMI Conservation Report is available via the Internet at: <http://www.ea.gov.au/coasts/mpa/heard/report.html>.

Key conservation values for the region include:

- only sub-Antarctic island group without introduced plants or animals;
- diverse and distinctive benthic habitats supporting a range of slow growing and vulnerable benthos such as corals and sponges;
- several endemic fish and benthic species;
- nursery areas for a range of fish stocks including commercially harvested Patagonian toothfish;
- highly productive nutrient rich areas due to the confluence of key oceanographic fronts such as the Antarctic Circumpolar Current;
- prime foraging areas for a number of land-based marine predators, including threatened albatross and seal species.

b. Relevant Socio-economic Matters

An examination of socio-economic matters according to the ANZECC criteria for the identification and selection of a marine protected area is made in the HIMI Conservation Report. The information summarised below has been primarily drawn from that Report, with comments relating to fisheries management also drawn from the HIMI Fishery Assessment Report: *Assessment report – Heard Island and McDonald Islands Fishery* (AFMA 2001).

Fisheries

Due to its remote location there are no indigenous or recreational fishers operating in the region. Australian commercial fishing around HIMI began in 1997. Fishing effort is concentrated on two species considered to have sufficient stocks to support a fishery, namely the Patagonian toothfish and mackerel icefish. Commercial fisheries activities are conducted

outside the 12 nautical mile territorial sea (which are currently protected under the Heard Island Wilderness Reserve Management Plan) and an additional 1 nautical mile buffer zone, and are subject to the *Fisheries Management Act 1991*, which is administered by the Australian Fisheries Management Authority (AFMA).

Current Australian fishing activities in the region are precluded from the use of longline fishing methods and so utilise demersal and to a much lesser extent pelagic trawling methods; future fishing activities may also include more extensive pelagic trawling and longlining. An evaluation of the effects of longlining and development of suitable seabird bycatch mitigation measures is required to precede introduction of any Australian longline fishing in the region.

Commercial fisheries of a number of other countries have operated in the Kerguelen region to the north of the HIMI EEZ for some time. The northern and central parts of the Kerguelen-Heard Plateau have been the principal target of illegal longline fishing for Patagonian toothfish in recent years. The zone to the east and north east of HIMI is the main area where illegal fishers have taken toothfish (by longlining rather than trawling) from the HIMI EEZ.

Long term commercial fishing is the main potential threat to the conservation values of the HIMI region. The management provisions for legal fishing in the region include a range of mitigating measures to minimise these threats. These include precautionary catch limits for both target and bycatch species that take account of predator-prey relationships, independent observers on all voyages, collection and analysis of a wide range of catch data and samples, restrictions on gear to minimise non-target species interactions, and ongoing research on the ecological viability of commercial fish stocks and impacts on the surrounding ecosystem.

Mineral or Petroleum Extraction

There is currently no exploration or extraction of minerals or petroleum resources being conducted in the HIMI region. The area is part of the remote frontier region of the Kerguelen Plateau. Whilst some areas in the Kerguelen Plateau region may have potential petroleum prospectivity, given the speculative nature of mineral or petroleum exploration in deep ocean basins it is unlikely that the HIMI region will provide opportunities for commercial mining or petroleum activities in the near future.

Research and Exploration

The AAD maintained a permanently occupied station at Heard Island for seven years (1947-1955). Since then, AAD visits to the Island have been irregular and generally for short periods. Extensive marine biological and oceanographic research has been conducted in the EEZ since 1990. The 12 nautical mile territorial sea around HIMI has been managed as an IUCN category 1a reserve for some years and this has not impeded research activities in the Territory.

Ongoing fisheries research across the region is also an integral component of the management arrangements for the HIMI Fishery. The commercial fishing licence provisions include a fisheries research component to contribute to determining the sustainability of fish stocks and recruitment rates. AFMA also administer a five year Strategic Research Plan for the Fishery to address environmental impacts of fishing in the HIMI region.

Tourism

Opportunities exist for recreation and tourist activities at HIMI, although few tourist visits have been made to the Islands due to geographical and climatic difficulties. Any increase in tourism activities would mostly be concentrated ashore and within the territorial sea and be subject to conditions imposed by the management plan for the reserve.

c. Relevant National and International Matters

Australia is committed to the protection of marine biodiversity and ecological processes, and the sustainable use of marine resources, through the goals and principles of Ecologically Sustainable Development (ESD). This commitment has been ratified through a number of national and international agreements and strategies.

With regard to HIMI, Australia's international responsibilities and obligations mainly include those matters relating to the:

- Convention on the Conservation of Antarctic Marine Living Resources,
- United Nations Convention on the Law of the Sea (UNCLOS),
- Convention Concerning the Protection of the World Cultural and Natural Heritage,
- Convention on Biological Diversity,
- Convention on the Conservation of Migratory Species of Wild Animals (Bonn Convention), and
- Convention on the International Trade of Endangered Species (CITES).

Management of HIMI, including waters to the limit of the 12 nautical mile territorial sea, presently occurs under the *Heard Island and McDonald Islands Act 1953*. Under this Act the *Environment Protection and Management Ordinance 1987* (the EPMO) has been made. Under the EPMO, the Territory is managed by the Australian Antarctic Division as an IUCN Category 1a reserve, in accordance with the Heard Island Wilderness Reserve Management Plan.

HIMI has been listed as a World Heritage Area to protect distinctive benthic habitats, flora and fauna of the islands and foraging predators dependant on the region. The area is also listed on the Register of National Estate. The World Heritage values of this area (<http://www.ea.gov.au/heritage/awh/worldheritage/sites/antarct/heard.html>) are currently managed by the AAD through its management of the Heard Island Wilderness Reserve.

Commercial fishing currently occurs in the Australian Fishing Zone, from outside of the 12 nautical mile limit of the territorial sea, plus an additional 1 nautical mile buffer zone, to the limit of the Australian EEZ. Commercial fishing is managed by the Australian Fisheries Management Authority in accordance with the provisions in the draft HIMI Fishery Management Plan, which is anticipated to come into effect by the end of 2002, and in accordance with relevant CCAMLR Conservation Measures.

SCHEDULE

Proposed Heard Island and McDonald Islands Marine Reserve

All of those areas of land and sea in the Southern Ocean contained within and bounded as follows*:

(a) the area bounded by the line:

- (i) commencing at the point of longitude 70 degrees 54 minutes east, latitude 51 degrees 50 minutes south;
- (ii) then along the geodesic in a generally south easterly direction to the point of longitude 71 degrees 32 minutes 30 seconds east, latitude 52 degrees 25 minutes 30 seconds south;
- (iii) then along the geodesic in a generally north easterly direction to the point of longitude 72 degrees 02 minutes 30 seconds east, latitude 52 degrees 12 minutes 30 seconds south;
- (iv) then along the geodesic in a generally north westerly direction to the point of longitude 71 degrees 24 minutes east, latitude 51 degrees 38 minutes south; and
- (v) then in a generally south westerly direction along the geodesic to the point of commencement.

(b) the area bounded by the line:

- (i) commencing at the point of longitude 72 degrees 08 minutes east, latitude 52 degrees 57 minutes south;
- (ii) then along the geodesic in a generally south easterly direction to the point of longitude 72 degrees 14 minutes 30 seconds east, latitude 53 degrees 03 minutes south;
- (iii) then south along the meridian of longitude 72 degrees 14 minutes 30 seconds east to its intersection with the parallel of latitude 53 degrees 30 minutes south;
- (iv) then east along the parallel of latitude 53 degrees 30 minutes south to its intersection with the meridian of longitude 74 degrees 12 minutes east;
- (v) then north along the meridian of longitude 74 degrees 12 minutes east to its intersection with the parallel of latitude 52 degrees 04 minutes south;
- (vi) then along the geodesic in a generally north westerly direction to the point of intersection between the meridian of longitude 73 degrees 17 minutes east and the treaty line defined by Article 2 of the Maritime Delimitation Treaty agreed between the Government of Australia and the Government of the French Republic in January 1982 (the Treaty boundary);
- (vii) then in a generally south westerly direction along the Treaty boundary to its intersection with the meridian of longitude 72 degrees 17 minutes east;
- (viii) then along the geodesic in a generally south easterly direction to the point of longitude 73 degrees 20 minutes east, latitude 52 degrees 08 minutes south;
- (ix) then south along the meridian of longitude 73 degrees 20 minutes east to its intersection with the northern limit of the Territorial Sea (TS**) adjacent to Heard Island;
- (x) then in a generally westerly direction along the northern limits of the TS adjacent to Heard Island and McDonald Islands to its intersection with the meridian of longitude 72 degrees 48 minutes east;
- (xi) then along the geodesic in a generally north westerly direction to the point of longitude 72 degrees 38 minutes east, latitude 52 degrees 43 minutes 30 seconds south; and
- (xii) then in a generally south westerly direction along the geodesic to the point of commencement.

(c) the area bounded by the line:

- (i) commencing at the point of longitude 75 degrees 27 minutes east, latitude 51 degrees 44 minutes south;
- (ii) then east along the parallel of latitude 51 degrees 44 minute south to its intersection with the meridian of longitude 77 degrees 13 minutes east;
- (iii) then along the geodesic in a generally south easterly direction to the point of longitude 77 degrees 29 minutes east, latitude 51 degrees 55 minutes south;
- (iv) then east along the parallel of latitude 51 degrees 55 minute south to its intersection with the outer edge of the Exclusive Economic Zone (EEZ***);
- (v) then in a generally north westerly direction along the EEZ boundary to its intersection with the Treaty boundary;
- (vi) then in a generally south westerly direction along the Treaty boundary to its intersection with the meridian of longitude 75 degrees east; and
- (vii) then along the geodesic in a generally south easterly direction to the point of longitude 75 degrees 45 minutes east, latitude 50 degrees 57 minutes south.
- (viii) then west along the parallel of latitude 50 degrees 57 minute south to its intersection with the meridian of longitude 74 degrees 53 minutes east;
- (ix) then along the geodesic in a generally south easterly direction to the point of commencement.

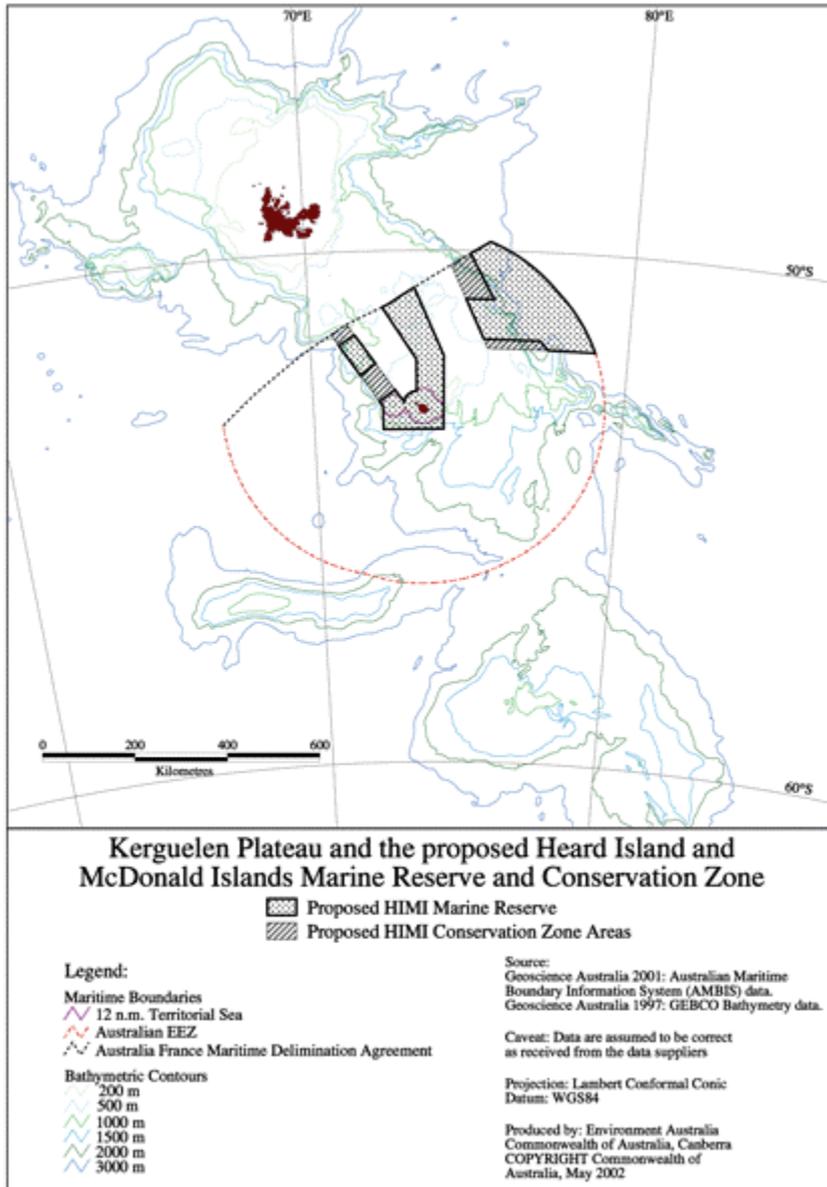
* All geographic coordinates are expressed in terms of the World Geodetic System 1984 ("WGS84").

** The "TS" is the territorial sea of Australia and its external territories established under the *Seas and Submerged Lands Act 1973* in accordance with Articles 3 and 4 of the 1982 United Nations Convention on the Law of the Sea. Australia has declared a 12 nautical mile wide territorial sea under the Act by (proclamation which entered into force on 20 November 1990 and published in the Commonwealth of Australia Gazette No. S297 on 13 November 1990). The outer limit of the territorial sea is 12 nautical miles seaward from the territorial sea baselines established under the Act (proclamations published in the Commonwealth of Australia Gazette No. S29 on 9 February 1983 and No. S57 on 31 March 1987).

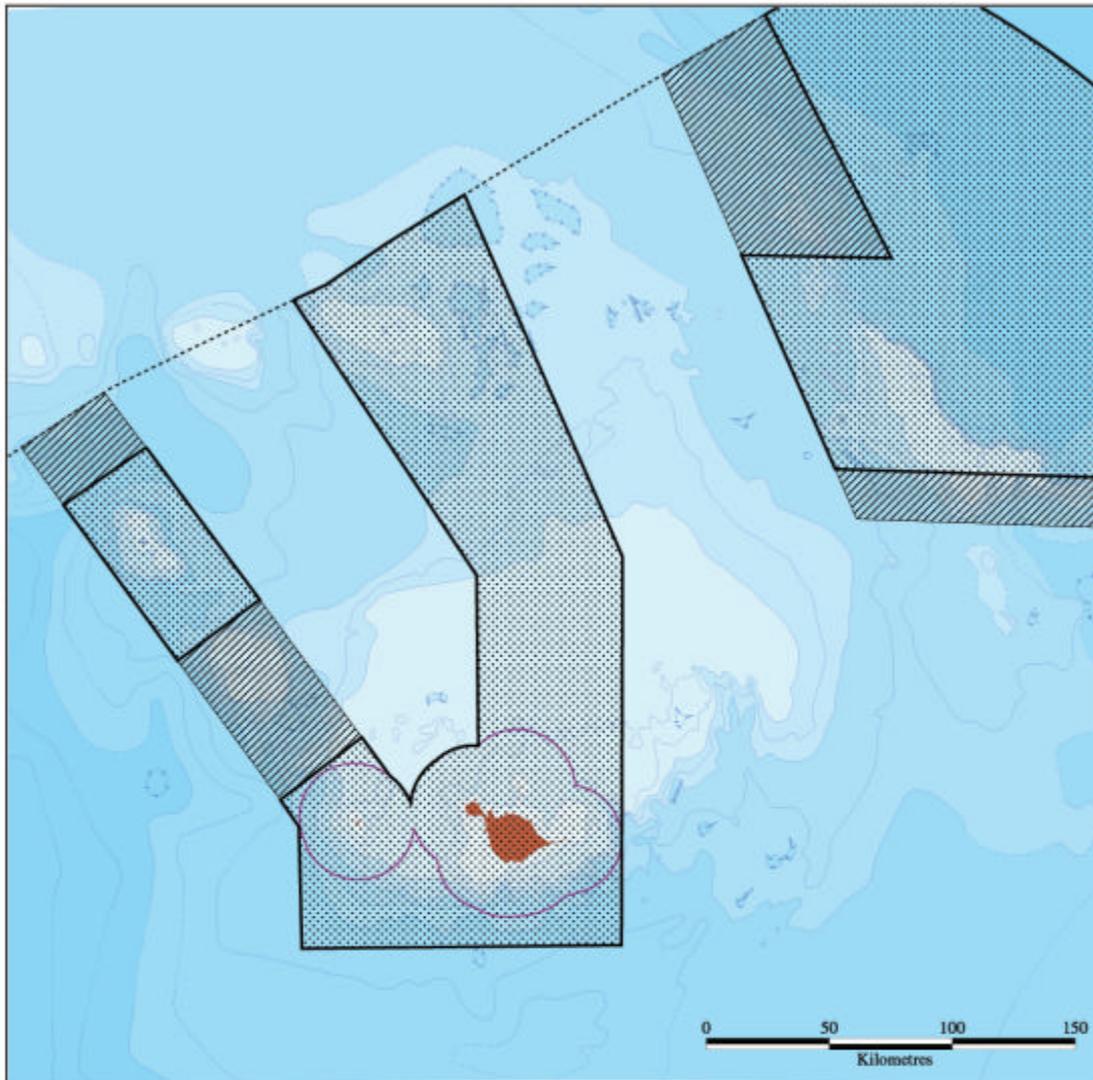
*** The "EEZ" is the Exclusive Economic Zone declared in relation to Australia and its external territories under the *Seas and Submerged Lands Act 1973* (proclamation dated 26 July 1994 published in the Commonwealth of Australia Gazette No. S290 on 29 July 1994). It commences at the outer limit of the territorial sea (12 nautical miles from the territorial sea baselines established under the Act) and extends generally to 200 nautical miles from the baselines. In relation to Heard Island and McDonald Islands it is in part less than 200 nautical miles to take account of the treaty line defined by Article 2 of the Maritime Delimitation Treaty agreed between the Government of Australia and the Government of the French Republic in January 1982 (entry into force 10 January 1983).

Maps

Kerguelen Plateau and the Proposed Heard Island and McDonald Islands Marine Reserve and Conservation Zone



Proposed Heard Island and McDonald Islands Marine Reserve and Conservation Zone



Proposed Heard Island and McDonald Islands Marine Reserve and Conservation Zone

-  Proposed HIMI Marine Reserve
-  Proposed HIMI Conservation Zone Areas

Legend:

Maritime Boundaries

-  12 n.m. Territorial Sea
-  Australian EEZ
-  Australia France Maritime Delimitation Agreement

Bathymetric Contours

-  Definite
-  Approximate
-  Depression Contour

Bathymetric Tints

-  land
-  0 - 100 m
-  100 - 300 m
-  300 - 500 m
-  500 - 1000 m
-  1000 - 2500 m
-  > 2500 m

Source:

Geoscience Australia 2001: Australian Maritime Boundary Information System (AMBIS) data.
Geoscience Australia 1997: GEBCO Bathymetry data.

Caveat: Data are assumed to be correct as received from the data suppliers

Projection: Lambert Conformal Conic
Datum: WGS84

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